

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An apparatus for plasma processing with which high-frequency electric power generated by a plurality of high-frequency electric power feeding circuits is fed to a plurality of discharge electrodes, and a plasma is generated between the discharge electrodes and a substrate which are in a processing chamber into which a gas for processing has been introduced, so as to process a substance on the substrate, the apparatus for plasma processing comprising:

a voltage distribution regulator configured to adjust a deviation in distribution of voltage on the discharge electrodes, the distribution of voltage occurring in a direction at right angles to a direction of fed electric power through the discharge electrodes,

wherein the voltage distribution regulator is an impedance changer which is provided to at least one of a plurality of high-frequency cables for supplying high-frequency electric power from at least a high-frequency electric power feeding circuit to the plurality of discharge electrodes in order to change an impedance at a feeding point for the discharge electrodes toward the high-frequency electric power feeding circuit, and

the impedance changer is a stub comprising including a branch cable which branches off from the high-frequency cable, and with a change in a cable length of the branch cable, the stub changes the impedance at a feeding point for the discharge electrodes toward the high-frequency electric power feeding circuit; and

a device configured to vary over time a phase difference between streams of the high-frequency electric power, which have the same frequency, supplied from the plurality of the high-frequency electric power feeding circuits, respectively.

Claim 2 (Currently Amended): An apparatus for plasma-enhanced chemical vapor deposition with which high-frequency electric power generated by a plurality of high-frequency electric power feeding circuits is fed to a plurality of discharge electrodes, and a plasma is generated between the discharge electrodes and a substrate which are in a film formation chamber into which a gas for forming a film containing a substance has been introduced, so as to vapor deposit the substance on the substrate, the apparatus for plasma-enhanced chemical vapor deposition comprising:

a voltage distribution regulator configured to adjust a deviation in distribution of voltage on the discharge electrodes, the distribution of voltage occurring in a direction at right angles to a direction of fed electric power through the discharge electrodes,

wherein the voltage distribution regulator is an impedance changer which is provided to at least one of a plurality of high-frequency cables for supplying high-frequency electric power from at least a high-frequency electric power feeding circuit to the plurality of discharge electrodes in order to change an impedance at a feeding point for the discharge electrodes toward the high-frequency electric power feeding circuit, and

the impedance changer is a stub ~~comprising~~ including a branch cable which branches off from the high-frequency cable, ~~and with a change in a cable length of the branch cable,~~ the stub changes the impedance at a feeding point for the discharge electrodes toward the high-frequency electric power feeding circuit; and

a device configured to vary over time a phase difference between streams of the high-frequency electric power, which have the same frequency, supplied from the plurality of the high-frequency electric power feeding circuits, respectively.

Claim 3-6 (Canceled).

Claim 7 (Currently Amended): An apparatus for plasma-enhanced chemical vapor deposition according to claim 2, wherein, with which high-frequency electric power generated by a plurality of high-frequency electric power feeding circuits is fed to a plurality of discharge electrodes, and a plasma is generated between the discharge electrodes and a substrate which are in a film formation chamber into which a gas for forming a film containing a substance has been introduced, so as to vapor deposit the substance on the substrate, the apparatus for plasma-enhanced chemical vapor deposition comprising:

a voltage distribution regulator configured to adjust a deviation in distribution of voltage on the discharge electrodes, the distribution of voltage occurring in a direction at right angles to a direction of fed electric power through the discharge electrodes,

wherein the voltage distribution regulator is an impedance changer which is provided to at least one of a plurality of high-frequency cables for supplying high-frequency electric power from at least a high-frequency electric power feeding circuit to the plurality of discharge electrodes in order to change an impedance at a feeding point for the discharge electrodes toward the high-frequency electric power feeding circuit, and

the impedance changer is a stub including a branch cable which branches off from the high-frequency cable, and with a change in [[the]] a characteristic impedance of the branch cable itself, the stub changes the impedance at a feeding point for the discharge electrodes toward the at least high-frequency electric power feeding circuit; and

a device configured to vary over time a phase difference between streams of the high-frequency electric power, which have the same frequency, supplied from the plurality of the high-frequency electric power feeding circuits, respectively.

Claim 8 (Withdrawn): An apparatus for plasma-enhanced chemical vapor deposition according to claim 2, wherein the voltage distribution regulator is an impedance changer which is provided between the discharge electrodes and a grounding point in order to change the impedance at a feeding point for the discharge electrodes toward the discharge electrodes.

Claim 9 (Withdrawn): An apparatus for plasma-enhanced chemical vapor deposition according to claim 8, wherein the impedance changer comprises a passive element which is connected between the discharge electrodes and the grounding point, and, with change in a constant of the passive element, the impedance changer changes the impedance between the discharge electrodes and the grounding point.

Claim 10 (Currently Amended): A method of processing a substrate with an apparatus for plasma processing by feeding high-frequency electric power generated by a plurality of high-frequency electric power feeding circuits to a plurality of discharge electrodes, and generating a plasma between the discharge electrodes and a substrate in a processing chamber into which a gas for processing has been introduced, so as to process a substance on the substrate, the method of processing a substrate with an apparatus for plasma processing comprising:

adjusting a deviation in a distribution of voltage on the discharge electrodes, the distribution of voltage occurring in a direction at right angles to a direction of fed electric power through the discharge electrodes, whereby a distribution of voltage at an end part of the substrate, the end part being at an end in the direction at right angles to the direction of fed electric power, and a distribution of voltage at a central part of the substrate are balanced,

connecting the voltage distribution regulator to at least one of a plurality of high-frequency cables, said voltage distribution regulator is an impedance changer that includes a stub branching off from the high-frequency cable;

supplying high-frequency electric power from at least a high-frequency electric power feeding circuit to the plurality of discharge electrodes;

changing an impedance at a feeding point for the discharge electrodes toward the high-frequency electric power feeding circuit by changing a cable length of the stub; and

varying over time a phase difference between streams of the high-frequency electric power, which have the same frequency, supplied from the plurality of the high-frequency electric power feeding circuits, respectively, so that a film is formed on the substrate, the film having a distribution of thickness that is made uniform over the entirety of the substrate.

Claim 11 (Currently Amended): A method for film formation with an apparatus for plasma-enhanced chemical vapor deposition by feeding high-frequency electric power generated by a plurality of high-frequency electric power feeding circuits to a plurality of discharge electrodes, and generating a plasma between the discharge electrodes and a substrate in a film formation chamber into which a gas for forming a film has been introduced, so as to vapor deposit the substance on the substrate, the method for film formation with an apparatus for plasma-enhanced chemical vapor deposition comprising:

adjusting a deviation in distribution of voltage on the discharge electrodes, the distribution of voltage occurring in a direction at right angles to a direction of fed electric power through the discharge electrodes, whereby a distribution of voltage at an end part of the substrate, the end part being at an end in the direction at right angles to the direction of fed electric power, and a distribution of voltage at a central part of the substrate are balanced,

connecting the voltage distribution regulator to at least one of a plurality of high-frequency cables, said voltage distribution regulator is an impedance changer that includes a stub branching off from the high-frequency cable;

supplying high-frequency electric power from at least a high-frequency electric power feeding circuit to the plurality of discharge electrodes;

changing an impedance at a feeding point for the discharge electrodes toward the high-frequency electric power feeding circuit by changing a cable length of the stub; and

varying over time a phase difference between streams of the high-frequency electric power, which have the same frequency, supplied from the plurality of the high-frequency electric power feeding circuits, respectively, so that a film is formed on the substrate, the film having a distribution of thickness that is made uniform over the entirety of the substrate.

Claims 12 and 13 (Canceled).

Claim 14 (Currently Amended): An apparatus for plasma processing according to claim 1, wherein, with which high-frequency electric power generated by a plurality of high-frequency electric power feeding circuits is fed to a plurality of discharge electrodes, and a plasma is generated between the discharge electrodes and a substrate which are in a processing chamber into which a gas for processing has been introduced, so as to process a substance on the substrate, the apparatus for plasma processing comprising:

a voltage distribution regulator configured to adjust a deviation in distribution of voltage on the discharge electrodes, the distribution of voltage occurring in a direction at right angles to a direction of fed electric power through the discharge electrodes,

wherein the voltage distribution regulator is an impedance changer which is provided to at least one of a plurality of high-frequency cables for supplying high-frequency electric

power from at least a high-frequency electric power feeding circuit to the plurality of discharge electrodes in order to change an impedance at a feeding point for the discharge electrodes toward the high-frequency electric power feeding circuit, and

the impedance changer is a stub including a branch cable which branches off from the high-frequency cable, and with a change in [[the]] a characteristic impedance of the branch cable itself, the stub changes the impedance at a feeding point for the discharge electrodes toward the at least high-frequency electric power feeding circuit; and

a device configured to vary over time a phase difference between streams of the high-frequency electric power, which have the same frequency, supplied from the plurality of the high-frequency electric power feeding circuits, respectively.